

REMARKS

The Office Action dated September 12, 2005, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto. Claims 1-2, 7-8, and 13-14 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Support for the amendments may be found, for example, on page 5, lines 12-17 and 33-35 of the present application as originally filed. Accordingly, no new matter has been added. Claims 1-17 are respectfully submitted for consideration.

Objection to the Abstract

The Office Action objected to the Abstract. A substitute Abstract is enclosed herewith. It is respectfully submitted that the objection to the Abstract is rendered moot by the substitute Abstract. Accordingly, it is respectfully requested the objection be withdrawn.

Rejections under 35 U.S.C. 102(e)

Claims 1-3, 5-9, 11-14, and 16-17 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,253,094 of Schmutz ("Schmutz"). Applicant respectfully submits that the presently pending claims recite subject matter that is neither disclosed nor suggested in the cited art.

Claim 1, upon which claims 2-6 depend, is directed to a reception method in a radio system comprising at least two receivers each comprising a radio part, which comprises channelling means, and a baseband part, each

receiver using a dedicated narrowband channel. The method includes separating, by the radio part of each receiver, the narrowband channel used by the receiver from a signal received from the radio path. The method also includes forwarding the separated narrowband channel from the radio part of the receiver to the baseband part for further processing. The method further includes separating, by the radio part of at least one receiver, in addition to the narrowband channel used by the receiver, at least one narrowband channel other than that used by the receiver from the signal received from the radio path. The method also includes forwarding the at least one other separated narrowband channel from the radio part of the at least one receiver to the baseband part of at least one other receiver using said other narrowband channel for further processing.

Claim 7, upon which claims 8-12 depend, is directed to a radio system including at least two receivers each comprising a radio part, which comprises channelling means, and a baseband part. Each receiver is configured to use a dedicated narrowband channel. The radio part of each receiver is configured to separate the narrowband channel used by the receiver from a signal received from the radio path and to forward the separated narrowband channel to the baseband part of the receiver for further processing. The radio part of at least one receiver is configured to separate, in addition to the narrowband channel used by the receiver, at least one narrowband channel other than that used by the receiver from the signal received from the radio path. The

system also includes transmission means for forwarding said at least one other separated narrowband channel from the radio part of said at least one receiver to the baseband part of at least one other receiver using said other narrowband channel for further processing.

Claim 13, upon which claims 14-17 depend, is directed to a receiver for a radio system comprising at least two receivers each comprising a radio part, which comprises channelling means, and a baseband part. Each receiver is configured to use a dedicated narrowband channel. The radio part of the receiver is configured to separate the narrowband channel used by the receiver from a signal received from the radio path and to forward the received narrowband channel to the baseband part of the receiver for further processing. The radio part of the receiver is configured to separate, in addition to the narrowband channel used by the receiver, at least one narrowband channel other than that used by the receiver from the signal received from the radio path. The receiver is configured to forward said at least one other separated narrowband channel from the radio part of the receiver to the baseband part of at least one other radio system receiver using said other narrowband channel for further processing.

As discussed in the specification, certain embodiments of the present invention have the advantage that the number of receiving branches per receiver can be increased without having to add radio parts in the same proportion. This considerably simplifies the implementation of the radio system, thus greatly

reducing costs. It is respectfully submitted that the cited art of Schmutz fails to disclose or suggest all the elements of any of the presently pending claims. Therefore the prior art fails to provide the critical and unobvious advantages discussed above.

Schmutz is directed to a technique for converting a non-sectorized cell into a sectorized cell having multiple sectors utilizing a single broadband processing unit. Schmutz's aim is to increase channel capacity of a cell using existing broadband processor units, provide a sectorized communication cell using lower power transmitters for the respective sectors, and provide a scheme for sectorizing a cell without replication of broadband processor units.

Claims 1, 7, and 13 each recite "a radio system comprising at least two receivers each comprising a radio part, which comprises channelling means, and a baseband part." Schmutz fails to teach or suggest these features. Schmutz discloses using only one channelizer, which is common to several Tx/Rx units (as can be seen in Fig. 5 and at col. 6, line 49 of Schmutz). Thus, Schmutz fails to teach or suggest at least these features of the claims.

Claim 1 recites "separating, by the radio part of at least one receiver, in addition to the narrowband channel used by the receiver, at least one narrowband channel other than that used by the receiver from the signal received from the radio path," claim 7 recites "the radio part of at least one receiver is configured to separate, in addition to the narrowband channel used by the receiver, at least one narrowband channel other than that used by the

receiver from the signal received from the radio path,” and claim 13 recites “the radio part of the receiver is configured to separate, in addition to the narrowband channel used by the receiver, at least one narrowband channel other than that used by the receiver from the signal received from the radio path.” Schmutz fails to teach or suggest these features. In Schmutz the Tx/Rx units send the whole received signal to the common channelizer 48. Schmutz discloses only one receiver comprising a radio part, which comprises channelling means. Schmutz fails to disclose or suggest a concept in which the wideband radio part of one receiver is also used to receive channels used by other system receivers in addition to the channel used by the receiver itself. Thus, Schmutz fails to teach or suggest at least these features of the claims.

Claim 1 recites “forwarding the at least one other separated narrowband channel from the radio part of the at least one receiver to the baseband part of at least one other receiver using said other narrowband channel for further processing,” claim 7 recites “transmission means for forwarding said at least one other separated narrowband channel from the radio part of said at least one receiver to the baseband part of at least one other receiver using said other narrowband channel for further processing, and claim 13 recites “the receiver is configured to forward said at least one other separated narrowband channel from the radio part of the receiver to the baseband part of at least one other radio system receiver using said other narrowband channel for further processing.” Schmutz does not teach or suggest at least these features. As

explained above, Schmutz does not use a receiver to separate one other narrowband channel, and so Schmutz does not and cannot forward the one other separated narrowband channel. Thus, Schmutz fails to teach or suggest at least these features of the claims.

Dependent claims 2-3 and 5-6 depend from independent claim 1, dependent claims 8-9 and 11-12 depend from independent claim 7, and dependent claims 14 and 16-17 depend from independent claim 13. The dependent claims incorporate all the limitations of the independent claims from which they depend, and recite additional limitations. Accordingly, dependent claims 2-3, 5-6, 8-9, 11-12, 14, and 16-17 are patentable for at least the reasons that claims 1, 7, and 13 are patentable.

Rejections under 35 U.S.C. 103(a)

Claims 4, 10, and 15 were rejected under 35 U.S.C. 102(e) as being unpatentable over Schmutz in view of U.S. Patent No. 6,400,966 of Andersson et al. (“Andersson”). The Office Action takes the position that Schmutz discloses all of the elements except “at least one of the receivers comprises at least two radio parts.” The Office Action cites Andersson to remedy this deficiency of Schmutz. Applicant respectfully submits that the presently pending claims recite subject matter that is neither disclosed nor suggested in the cited art.

Schmutz is discussed above. Andersson generally relates to a base station architecture for a mobile communications system. Andersson generally

describes that a base transceiver station (BTS) for a mobile communications system can be divided into a plurality of functional units to enable the signal processing resources to be flexibly located. Andersson generally submits that flexible communications interfaces can be created between the BTS units which allows the signal processing resources within the units to be used more efficiently.

As explained above, Schmutz does not teach or suggest at least some of the features of claims 1, 7, and 13, upon which claims 4, 11, and 15 depend. As explained above, Schmutz does not use a receiver to separate one other narrowband channel, and Schmutz does not and cannot forward the one other separated narrowband channel. Thus, Schmutz fails to teach or suggest at least these features of the claims. Andersson does not remedy the deficiencies of Schmutz, because Andersson also does not use a receiver to separate one other narrowband channel, and does not and cannot forward the one other separated narrowband channel.

Additionally it would not have been obvious to combine Schmutz and Andersson, because Schmutz teaches away from added complexity, and suggests using existing base transceiver station technology. Andersson, on the other hand, suggests changes to the base transceiver station technology, that would add to the cost of implementing Schmutz, although Andersson suggests that its solution permits signal processing resources to be “cost-effectively implemented in hardware.” Therefore, one of ordinary skill in the art would not

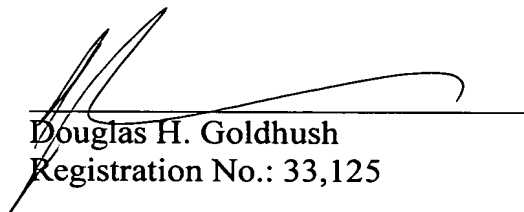
be motivated to combine Schmutz and Andersson.

Conclusion

For the reasons explained above, it is respectfully submitted that each of claims 1-17 recites subject matter that is neither disclosed nor suggests in the cited prior art. It is therefore respectfully requested that all of claims 1-17 be allowed, and that this application be passed to issue.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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Enclosure: Amended Abstract